

SEQUENCE LISTING

<110> The University of Queensland  
 National Institute of Biological Standards and Control

<120> Novel anti-fibrinolytic agents

<130> Textilinins

<140> PCT/AU99/0XXX

<141> 1999-05-10

<150> AU PP3450

<151> 1999-05-11

<160> 44

<170> PatentIn Ver. 2.0

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<211> 180

<212> DNA

<213> Pseudonaja textilis

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<222> (1)..(180)

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<222> (1)..(180)

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 Lys Asp Arg Pro Asp Phe Cys Glu Leu Pro Ala Asp Thr Gly Pro Cys  
 1 5 10 15

48

aga gtc aga ttc cca tcc ttc tac tac aac cca gat gaa aaa aag tgc  
 Arg Val Arg Phe Pro Ser Phe Tyr Tyr Asn Pro Asp Glu Lys Lys Cys  
 20 25 30

96

cta gag ttt att tat ggt gga tgc gaa ggg aat gct aac aat ttt atc  
 Leu Glu Phe Ile Tyr Gly Gly Cys Glu Gly Asn Ala Asn Asn Phe Ile  
 35 40 45

144

acc aaa gag gaa tgc gaa agc acc tgt gct gcc tga  
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<211> 59

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<213> Pseudonaja textilis

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Lys Asp Arg Pro Asp Phe Cys Glu Leu Pro Ala Asp Thr Gly Pro Cys  
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Arg Val Arg Phe Pro Ser Phe Tyr Tyr Asn Pro Asp Glu Lys Lys Cys  
 20 25 30

Leu Glu Phe Ile Tyr Gly Gly Cys Glu Gly Asn Ala Asn Asn Phe Ile  
 35 40 45

Thr Lys Glu Glu Cys Glu Ser Thr Cys Ala Ala  
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 1 5 10 15

aga gtc aga ttc cca tcc ttc tac tac aac cca gat gaa caa aaa tgc 96  
 Arg Val Arg Phe Pro Ser Phe Tyr Tyr Asn Pro Asp Glu Gln Lys Cys  
 20 25 30

cta gag ttt att tat ggt gga tgc gaa ggg aat gct aac aat ttt atc 144  
 Leu Glu Phe Ile Tyr Gly Gly Cys Glu Gly Asn Ala Asn Asn Phe Ile  
 35 40 45

acc aaa gag gaa tgc gaa agc acc tgt gct gcc tga 180  
 Thr Lys Glu Glu Cys Glu Ser Thr Cys Ala Ala  
 50 55 60

<210> 4

<211> 59

<212> PRT

<213> Pseudonaja textilis

<400> 4

Lys Asp Arg Pro Glu Leu Cys Glu Leu Pro Pro Asp Thr Gly Pro Cys  
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Arg Val Arg Phe Pro Ser Phe Tyr Tyr Asn Pro Asp Glu Gln Lys Cys  
 20 25 30

Leu Glu Phe Ile Tyr Gly Gly Cys Glu Gly Asn Ala Asn Asn Phe Ile  
 35 40 45

Thr Lys Glu Glu Cys Glu Ser Thr Cys Ala Ala  
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Lys Asp Arg Pro Asn Phe Cys Lys Leu Pro Ala Glu Thr Gly Arg Cys  
1 5 10 15

aat gcc aaa atc cca cgc ttc tac tac aac cca cgt caa cat caa tgc 96  
Asn Ala Lys Ile Pro Arg Phe Tyr Tyr Asn Pro Arg Gln His Gln Cys  
20 25 30

ata gag ttt ctc tat ggt gga tgc gga ggg aat gct aac aat ttt aag 144  
Ile Glu Phe Leu Tyr Gly Cys Gly Asn Ala Asn Asn Phe Lys  
35 40 45

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Asn Ala Lys Ile Pro Arg Phe Tyr Tyr Asn Pro Arg Gln His Gln Cys  
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35 40 45

Thr Ile Lys Glu Cys Glu Ser Thr Cys Ala Ala  
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 1 5 10 15

aaa ggc aac gtc cca cgc ttc tac tac aac gca gat cat cat caa tgc 96  
 Lys Gly Asn Val Pro Arg Phe Tyr Tyr Asn Ala Asp His His Gln Cys  
 20 25 30

cta aaa ttt att tat ggt gga tgt gga ggg aat gct aac aat ttt aag 144  
 Leu Lys Phe Ile Tyr Gly Gly Cys Gly Asn Ala Asn Asn Phe Lys  
 35 40 45

acc ata gag gaa ggc aaa agc acc tgt gct gcc tga 180  
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 50 55 60

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<400> 8  
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 35 40 45

Thr Ile Glu Glu Gly Lys Ser Thr Cys Ala Ala  
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Lys Asp Arg Pro Lys Phe Cys Glu Leu Leu Pro Asp Thr Gly Ser Cys  
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gaa gac ttt acc gga gcc ttc cac tac agc aca cgt gat cgt gaa tgc 96  
Glu Asp Phe Thr Gly Ala Phe His Tyr Ser Thr Arg Asp Arg Glu Cys  
20 25 30

ata gag ttt att tat ggt gga tgc gga ggg aat gct aac aat ttt atc 144  
Ile Glu Phe Ile Tyr Gly Gly Cys Gly Asn Ala Asn Asn Phe Ile  
35 40 45

acc aaa gag gaa tgc gaa agc acc tgc gct gcc tga 180  
Thr Lys Glu Glu Cys Glu Ser Thr Cys Ala Ala  
50 55 60

<210> 10

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<213> Pseudonaja textilis

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1 5 10 15

Glu Asp Phe Thr Gly Ala Phe His Tyr Ser Thr Arg Asp Arg Glu Cys  
20 25 30

Ile Glu Phe Ile Tyr Gly Gly Cys Gly Asn Ala Asn Asn Phe Ile  
35 40 45

Thr Lys Glu Glu Cys Glu Ser Thr Cys Ala Ala  
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Lys Asp Arg Pro Lys Phe Cys Glu Leu Pro Ala Asp Ile Gly Pro Trp  
1 5 10 15

gat gac ttt acc gga gcc ttc cac tac agc cca cgt gaa cat gaa tgc 96  
Asp Asp Phe Thr Gly Ala Phe His Tyr Ser Pro Arg Glu His Glu Cys  
20 25 30

ata gag ttt att tat ggt gga tgc aaa ggg aat gct aac aac ttt aat 144

Ile Glu Phe Ile Tyr Gly Gly Cys Lys Gly Asn Ala Asn Asn Phe Asn  
 35 40 45

acc caa gag caa tgc gaa agc acc tgt gct gcc tga 180  
 Thr Gln Glu Gln Cys Glu Ser Thr Cys Ala Ala  
 50 55 60

<210> 12

<211> 59

<212> PRT

<213> Pseudonaja textilis

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Lys Asp Arg Pro Lys Phe Cys Glu Leu Pro Ala Asp Ile Gly Pro Trp  
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Asp Asp Phe Thr Gly Ala Phe His Tyr Ser Pro Arg Glu His Glu Cys  
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Ile Glu Phe Ile Tyr Gly Gly Cys Lys Gly Asn Ala Asn Asn Phe Asn  
 35 40 45

Thr Gln Glu Gln Cys Glu Ser Thr Cys Ala Ala  
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<210> 13

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 1 5 10 15

gag gtg ctg acc ccc gtc tcc agc 72  
 Glu Val Leu Thr Pro Val Ser Ser  
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<210> 14

<211> 24

<212> PRT

<213> Pseudonaja textilis

<400> 14

Met Ser Ser Gly Gly Leu Leu Leu Leu Leu Gly Leu Leu Thr Leu Trp  
 1 5 10 15

Glu Val Leu Thr Pro Val Ser Ser  
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<210> 15  
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 <212> DNA  
 <213> Pseudonaja textilis

<220>  
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 <222> (1)..(72)

<220>  
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 -20 -15 -10

gag gtg ctg acc ccc gtc tcc agc aag gac cgt ccg gat ttc tgt gaa 96  
 Glu Val Leu Thr Pro Val Ser Ser Lys Asp Arg Pro Asp Phe Cys Glu  
 -5 -1 1 5

ctg cct gct gac acc gga cca tgt aga gtc aga ttc cca tcc ttc tac 144  
 Leu Pro Ala Asp Thr Gly Pro Cys Arg Val Arg Phe Pro Ser Phe Tyr  
 10 15 20

tac aac cca gat gaa aaa aag tgc cta gag ttt att tat ggt gga tgc 192  
 Tyr Asn Pro Asp Glu Lys Lys Cys Leu Glu Phe Ile Tyr Gly Gly Cys  
 25 30 35 40

gaa ggg aat gct aac aat ttt atc acc aaa gag gaa tgc gaa agc acc 240  
 Glu Gly Asn Ala Asn Asn Phe Ile Thr Lys Glu Glu Cys Glu Ser Thr  
 45 50 55

tgt gct gcc tga 252  
 Cys Ala Ala  
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<210> 16  
 <211> 83  
 <212> PRT  
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<400> 16  
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Glu Val Leu Thr Pro Val Ser Ser Lys Asp Arg Pro Asp Phe Cys Glu  
 20 25 30

Leu Pro Ala Asp Thr Gly Pro Cys Arg Val Arg Phe Pro Ser Phe Tyr  
 35 40 45

Tyr Asn Pro Asp Glu Lys Lys Cys Leu Glu Phe Ile Tyr Gly Gly Cys  
 50 55 60

Glu Gly Asn Ala Asn Asn Phe Ile Thr Lys Glu Glu Cys Glu Ser Thr  
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Cys Ala Ala

<210> 17

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<212> DNA

<213> *Pseudonaja textilis*

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<221> mat\_peptide

<222> (73)..(252)

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 Met Ser Ser Gly Gly Leu Leu Leu Leu Leu Gly Leu Leu Thr Leu Trp  
 -20 -15 -10

gag gtg ctg acc ccc gtc tcc agc aag gac cgt cca gag ttg tgt gaa 96  
 Glu Val Leu Thr Pro Val Ser Ser Lys Asp Arg Pro Glu Leu Cys Glu  
 -5 -1 1 5

ctg cct cct gac acc gga cca tgt aga gtc aga ttc cca tcc ttc tac 144  
 Leu Pro Pro Asp Thr Gly Pro Cys Arg Val Arg Phe Pro Ser Phe Tyr  
 10 15 20

tac aac cca gat gaa caa aaa tgc cta gag ttt att tat ggt gga tgc 192  
 Tyr Asn Pro Asp Glu Gln Lys Cys Leu Glu Phe Ile Tyr Gly Gly Cys  
 25 30 35 40

gaa ggg aat gct aac aat ttt atc acc aaa gag gaa tgc gaa agc acc 240  
 Glu Gly Asn Ala Asn Asn Phe Ile Thr Lys Glu Glu Cys Glu Ser Thr  
 45 50 55

tgt gct gcc tga 252  
 Cys Ala Ala  
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<210> 18

<211> 83

<212> PRT

<213> *Pseudonaja textilis*

<400> 18  
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 Glu Val Leu Thr Pro Val Ser Ser Lys Asp Arg Pro Glu Leu Cys Glu  
 20 . . . . . 25 . . . . . 30  
 Leu Pro Pro Asp Thr Gly Pro Cys Arg Val Arg Phe Pro Ser Phe Tyr  
 35 . . . . . 40 . . . . . 45  
 Tyr Asn Pro Asp Glu Gln Lys Cys Leu Glu Phe Ile Tyr Gly Gly Cys  
 50 . . . . . 55 . . . . . 60  
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 65 . . . . . 70 . . . . . 75 . . . . . 80  
 Cys Ala Ala

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<210> 19
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-20 -15 -10

gag gtg ctg acc ccc gtc tcc agc aag gac cgt cca aat ttc tgt aaa 96
Glu Val Leu Thr Pro Val Ser Ser Lys Asp Arg Pro Asn Phe Cys Lys
-5 -1 1 5

ctg cct gct gaa acc gga cga tgt aat gcc aaa atc cca cgc ttc tac 144
Leu Pro Ala Glu Thr Gly Arg Cys Asn Ala Lys Ile Pro Arg Phe Tyr
10 15 20

tac aac cca cgt caa cat caa tgc ata gag ttt ctc tat ggt gga tgc 192
Tyr Asn Pro Arg Gln His Gln Cys Ile Glu Phe Leu Tyr Gly Gly Cys
25 30 35 40

gga ggg aat gct aac aat ttt aag acc att aag gaa tgc gaa agc acc 240
Gly Gly Asn Ala Asn Asn Phe Lys Thr Ile Lys Glu Cys Glu Ser Thr
45 50 55

tgt qct qca tga 252

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x

Cys Ala Ala

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&lt;210&gt; 20

&lt;211&gt; 83

&lt;212&gt; PRT

&lt;213&gt; Pseudonaja textilis

&lt;400&gt; 20

Met Ser Ser Gly Gly Leu Leu Leu Leu Gly Leu Leu Thr Leu Trp  
1 5 10 15Glu Val Leu Thr Pro Val Ser Ser Lys Asp Arg Pro Asn Phe Cys Lys  
20 25 30Leu Pro Ala Glu Thr Gly Arg Cys Asn Ala Lys Ile Pro Arg Phe Tyr  
35 40 45Tyr Asn Pro Arg Gln His Gln Cys Ile Glu Phe Leu Tyr Gly Gly Cys  
50 55 60Gly Gly Asn Ala Asn Asn Phe Lys Thr Ile Lys Glu Cys Glu Ser Thr  
65 70 75 80

Cys Ala Ala

&lt;210&gt; 21

&lt;211&gt; 252

&lt;212&gt; DNA

&lt;213&gt; Pseudonaja textilis

&lt;220&gt;

&lt;221&gt; CDS

&lt;222&gt; (1)..(252)

&lt;220&gt;

&lt;221&gt; sig\_peptide

&lt;222&gt; (1)..(72)

&lt;220&gt;

&lt;221&gt; mat\_peptide

&lt;222&gt; (73)..(252)

&lt;400&gt; 21

atg tct tct gga ggt ctt ctt ctc ctg ctg gga ctc ctc acc ctc tgg 48  
Met Ser Ser Gly Gly Leu Leu Leu Leu Gly Leu Leu Thr Leu Trp  
-20 -15 -10gag gtg ctg acc ccc gtc tcc agc aag gac cat cca aaa ttc tgt gaa 96  
Glu Val Leu Thr Pro Val Ser Ser Lys Asp His Pro Lys Phe Cys Glu  
-5 -1 1 5ctc cct gct gaa acc gga tca tgt aaa ggc aac gtc cca cgc ttc tac 144  
Leu Pro Ala Glu Thr Gly Ser Cys Lys Gly Asn Val Pro Arg Phe Tyr  
10 15 20

tac aac gca gat cat cat caa tgc cta aaa ttt att tat ggt gga tgt 192

Tyr Asn Ala Asp His His Gln Cys Leu Lys Phe Ile Tyr Gly Gly Cys  
 25 30 35 40

gga ggg aat gct aac aat ttt aag acc ata gag gaa ggc aaa agc acc 240  
 Gly Gly Asn Ala Asn Asn Phe Lys Thr Ile Glu Glu Gly Lys Ser Thr  
 45 50 55

tgt gct gcc tga 252  
 Cys Ala Ala  
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<210> 22  
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<400> 22  
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Glu Val Leu Thr Pro Val Ser Ser Lys Asp His Pro Lys Phe Cys Glu  
 20 25 30

Leu Pro Ala Glu Thr Gly Ser Cys Lys Gly Asn Val Pro Arg Phe Tyr  
 35 40 45

Tyr Asn Ala Asp His His Gln Cys Leu Lys Phe Ile Tyr Gly Gly Cys  
 50 55 60

Gly Gly Asn Ala Asn Asn Phe Lys Thr Ile Glu Glu Gly Lys Ser Thr  
 65 70 75 80

Cys Ala Ala

<210> 23  
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 -20 -15 -10

gag gtg ctg acc ccc gtc tcc agc aag gac cgt cca aaa ttc tgt gaa 96

Glu Val Leu Thr Pro Val Ser Ser Lys Asp Arg Pro Lys Phe Cys Glu  
 -5 -1 1 5

ctg ctt cct gac acc gga tca tgt gaa gac ttt acc gga gcc ttc cac 144  
 Leu Leu Pro Asp Thr Gly Ser Cys Glu Asp Phe Thr Gly Ala Phe His  
 10 15 20

tac agc aca cgt gat cgt gaa tgc ata gag ttt att tat ggt gga tgc 192  
 Tyr Ser Thr Arg Asp Arg Glu Cys Ile Glu Phe Ile Tyr Gly Cys  
 25 30 35 40

gga ggg aat gct aac aat ttt atc acc aaa gag gaa tgc gaa agc acc 240  
 Gly Gly Asn Ala Asn Asn Phe Ile Thr Lys Glu Glu Cys Glu Ser Thr  
 45 50 55

tgt gct gcc tga 252  
 Cys Ala Ala  
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<210> 24

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<212> PRT

<213> Pseudonaja textilis

<400> 24

Met Ser Ser Gly Gly Leu Leu Leu Leu Leu Gly Leu Leu Thr Leu Trp  
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Glu Val Leu Thr Pro Val Ser Ser Lys Asp Arg Pro Lys Phe Cys Glu  
 20 25 30

Leu Leu Pro Asp Thr Gly Ser Cys Glu Asp Phe Thr Gly Ala Phe His  
 35 40 45

Tyr Ser Thr Arg Asp Arg Glu Cys Ile Glu Phe Ile Tyr Gly Cys  
 50 55 60

Gly Gly Asn Ala Asn Asn Phe Ile Thr Lys Glu Glu Cys Glu Ser Thr  
 65 70 75 80

Cys Ala Ala

<210> 25

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&lt;222&gt; (73)..(252)

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atg tct tct gga ggt ctt ctt ctc ctg ctg gga ctc ctc acc ctc tgg	48
Met Ser Ser Gly Gly Leu Leu Leu Leu Leu Gly Leu Leu Thr Leu Trp	
-20	-15
	-10

gag gtg ctg acc ccc gtc tcc agc aag gac cgt cca aag ttc tgt gaa	96
Glu Val Leu Thr Pro Val Ser Ser Lys Asp Arg Pro Lys Phe Cys Glu	
-5	-1
	5

ctg cct gct gac atc gga cca tgg gat gac ttt acc gga gcc ttc cac	144
Leu Pro Ala Asp Ile Gly Pro Trp Asp Asp Phe Thr Gly Ala Phe His	
10	15
	20

tac agc cca cgt gaa cat gaa tgc ata gag ttt att tat ggt gga tgc	192
Tyr Ser Pro Arg Glu His Glu Cys Ile Glu Phe Ile Tyr Gly Gly Cys	
25	30
	35
	40

aaa ggg aat gct aac aac ttt aat acc caa gag caa tgc gaa agc acc	240
Lys Gly Asn Ala Asn Asn Phe Asn Thr Gln Glu Gln Cys Glu Ser Thr	
45	50
	55

tgt gct gcc tga	252
Cys Ala Ala	
60	

&lt;210&gt; 26

&lt;211&gt; 83

&lt;212&gt; PRT

&lt;213&gt; Pseudonaja textilis

&lt;400&gt; 26

Met Ser Ser Gly Gly Leu Leu Leu Leu Gly Leu Leu Thr Leu Trp	
1	5
	10
	15

Glu Val Leu Thr Pro Val Ser Ser Lys Asp Arg Pro Lys Phe Cys Glu	
20	25
	30

Leu Pro Ala Asp Ile Gly Pro Trp Asp Asp Phe Thr Gly Ala Phe His	
35	40
	45

Tyr Ser Pro Arg Glu His Glu Cys Ile Glu Phe Ile Tyr Gly Gly Cys	
50	55
	60

Lys Gly Asn Ala Asn Asn Phe Asn Thr Gln Glu Gln Cys Glu Ser Thr	
65	70
	75
	80

Cys Ala Ala

&lt;210&gt; 27

&lt;211&gt; 24

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Description of Artificial Sequence:degenerate

sense primer

<400> 27  
atgaargaya grcchgaryt ngar 24

<210> 28  
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<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:degenerate antisense primer

<400> 28  
gtrctyt crt gytcytcy 18

<210> 29  
<211> 30  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:gene-specific forward primer for Txln1

<400> 29  
atatatggat ccaaggaccg gcctgacttc 30

<210> 30  
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<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:gene-specific reverse primer for Txln1

<400> 30  
aacgggaatt ctcagagcca cacgtgctt c 31

<210> 31  
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<220>  
<223> Description of Artificial Sequence:gene-specific reverse primer for Txln2

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aacgggaatt ctcatgagcc acaggttagac tc 32

<210> 32

<211> 45  
 <212> DNA  
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 <220>  
 <223> Description of Artificial Sequence: RACE-ready long  
 universal reverse primer  
  
 <400> 32  
 ctaatacgac tcactatagg gcaaggcgtg gtaacaacgc agagt

45

<210> 33  
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 <212> DNA  
 <213> Artificial Sequence  
  
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 <223> Description of Artificial Sequence: RACE-ready  
 short universal reverse primer  
  
 <400> 33  
 ctaatacgac tcactatagg gc

22

<210> 34  
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 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> Description of Artificial Sequence: RACE-ready  
 nested universal reverse primer  
  
 <400> 34  
 aagcagtgg aacaacgcag agt

23

<210> 35  
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 <212> DNA  
 <213> Artificial Sequence  
  
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 <223> Description of Artificial Sequence: Txln1-gene  
 specific forward primer  
  
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 atcagcggat ccatgtctgg aggt

24

<210> 36  
 <211> 27  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> Description of Artificial Sequence: Txln1  
 gene-specific reverse primer

<400> 36  
tctcctgaat tctcaggcag cacaggt

27

<210> 37  
<211> 27  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Txln-active peptide sequence forward primer

<400> 37  
attataaggat ccaaggaccg tccggat

27

<210> 38  
<211> 27  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:gene-specific forward primer for txln2

<400> 38  
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&lt;210&gt; 43

&lt;211&gt; 408

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&lt;220&gt;

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&lt;222&gt; (84)..(191)

&lt;400&gt; 43

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 -10 -5 -1 1 5

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tcc ttc tac tac aac cca gat gaa caa aaa tgc cta gag ttt att 191  
 Ser Phe Tyr Tyr Asn Pro Asp Glu Gln Lys Cys Leu Glu Phe Ile  
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-5 -1 1 5

Leu Pro Pro Asp Thr Gly Pro Cys Arg Val Arg Ser Pro Ser Phe Tyr  
10 15 20

Tyr Asn Pro Asp Glu Gln Lys Cys Leu Glu Phe Ile  
25 30 35